104TH CONGRESS
2D SESSION

S. 1726

To promote electronic commerce by facilitating the use of strong encryption, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

MAY 2, 1996

Mr. BURNS (for himself, Mr. PRESSLER, Mr. LEAHY, Mr. DOLE, Mr. FAIRCLOTH, Mrs. MURRAY, Mr. MCCAIN, Mr. WYDEN, and Mr. ASHCROFT) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To promote electronic commerce by facilitating the use of strong encryption, and for other purposes.

1   *Be it enacted by the Senate and House of Representa-*

2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4   This Act may be cited as the "Promotion of Com-

5 merce On-Line in the Digital Era (Pro-CODE) Act of

6 1996".

7 **SEC. 2. FINDINGS; PURPOSE.**

8   (a) FINDINGS.—The Congress finds the following:

1   (1) The ability to digitize information makes
2   carrying out tremendous amounts of commerce and
3   personal communication electronically possible.

4   (2) Miniaturization, distributed computing, and
5   reduced transmission costs make communication via
6   electronic networks a reality.

7   (3) The explosive growth in the Internet and
8   other computer networks reflects the potential
9   growth of electronic commerce and personal
10 communication.

11   (4) The Internet and the global information
12 infrastructure have the potential to revolutionize the
13 way individuals and businesses conduct business.

14   (5) The full potential of the Internet for the
15 conduct of business cannot be realized as long as it
16 is an insecure medium in which confidential business
17 information and sensitive personal information
18 remain at risk of unauthorized viewing, alteration,
19 and use.

20   (6) Encryption of information enables busi-
21 nesses and individuals to protect themselves against
22 the unauthorized viewing, alteration, and use of
23 information by employing widely understood and
24 readily available science and technology to ensure

1 the confidentiality, authenticity, and integrity of
2 information.

3 (7) In order to promote economic growth and
4 meet the needs of businesses and individuals in the
5 United States, a variety of encryption products and
6 programs should be available to promote strong,
7 flexible, and commercially acceptable encryption
8 capabilities.

9 (8) United States computer, computer software
10 and hardware, communications, and electronics busi-
11 nesses are leading the world technology revolution,
12 as those businesses have developed and are prepared
13 to offer immediately to computer users worldwide a
14 variety of communications and computer hardware
15 and computer software that provide strong, robust,
16 and easy-to-use encryption.

17 (9) United States businesses seek to market the
18 products described in paragraph (8) in competition
19 with scores of foreign businesses in many countries
20 that offer similar, and frequently stronger,
21 encryption products and programs.

22 (10) United States businesses have been dis-
23 couraged from further developing and marketing
24 products with encryption capabilities because of reg-
25 ulatory efforts by the Secretary of Commerce, acting

1 through the National Institute of Standards and
2 Technology, and other entities to promulgate stand-
3 ards and guidelines in support of government-de-
4 signed solutions to encryption problems that—

5   (A) were not developed in the private sec-
6   tor; and

7   (B) have not received widespread commer-
8   cial support.

9   (11) Because of outdated Federal controls,
10 United States businesses have been prohibited from
11 exporting strong encryption products and programs.

12   (12) The Secretary of Commerce, acting
13 through the National Institute of Standards and
14 Technology, has attempted to leverage the desire of
15 United States businesses to sell commercial products
16 to the United States Government, and sell a single
17 product worldwide, to force the businesses to include
18 features in products sold by the businesses in the
19 United States and in foreign countries that will
20 allow the Federal Government easy access to the
21 plain text of all electronic information and commu-
22 nications.

23   (13) Specifically, the Secretary of Commerce,
24 acting through the National Institute of Standards
25 and Technology, has proposed that United States

1   businesses be allowed to sell products and programs
2   offering strong encryption to the United States Gov-
3   ernment and in foreign countries only if the prod-
4   ucts and programs include a feature guaranteeing
5   the Federal Government access to a key that
6   decrypts information (hereafter in this section
7   referred to as ''key escrow encryption'').

8   (14) The key escrow encryption approach to
9   regulating encryption is reflected in the approval in
10 1994 by the National Institute of Standards and
11 Technology of a Federal information processing
12 standard for a standard of escrowed encryption,
13 known as the ''clipper chip'', that was flawed and
14 controversial.

15 (15) The Federal Government—

16   (A) has designed key escrow encryption to
17   solve a perceived problem; and

18   (B) has ignored the fact that—

19   (i) there is no demonstrated commer-
20   cial demand for features which give gov-
21   ernments easy access to information; and

22   (ii) numerous nonkey escrow
23   encryption alternatives are available com-
24   mercially from foreign suppliers and free of
25   charge from the Internet.

1   (16) In order to promote electronic commerce

2   in the twenty-first century and to realize the full po-

3   tential of the Internet and other computer net-

4   works—

5   (A) United States businesses should be

6   encouraged to develop and market products and

7   programs offering encryption capabilities; and

8   (B) the Federal Government should be

9   prohibited from promulgating regulations and

10   adopting policies that discourage the use and

11   sale of encryption.

12   (b) PURPOSE.—The purpose of this Act is to promote

13 electronic commerce through the use of strong encryption

14 by—

15   (1) recognizing that businesses in the United

16   States that offer computer hardware and computer

17   software made in the United States that incorporate

18   encryption technology are ready and immediately

19   able, with respect to electronic information that will

20   be essential to conducting business in the twenty-

21   first century to provide products that are designed

22   to—

23   (A) protect the confidentiality of that

24   information; and

1   (B) ensure the authenticity and integrity

2   of that information;

3   (2) restricting the Department of Commerce

4   with respect to the promulgation or enforcement of

5   regulations, or the application of policies, that

6   impose government-designed encryption standards;

7   and

8   (3) promoting the ability of United States busi-

9   nesses to sell to computer users worldwide computer

10   software and computer hardware that provide the

11   strong encryption demanded by such users by—

12   (A) restricting Federal or State regulation

13   of the sale of such products and programs in

14   interstate commerce;

15   (B) prohibiting mandatory key escrow

16   encryption systems; and

17   (C) establishing conditions for the sale of

18   encryption products and programs in foreign

19   commerce.

20   **SEC. 3. DEFINITIONS.**

21   For purposes of this Act, the following definitions

22   shall apply:

23   (1) AS IS.—The term "as is" means, in the

24   case of computer software (including computer soft-

25   ware with encryption capabilities), a computer soft-

1 ware program that is not designed, developed, or

2 tailored by a producer of computer software for spe-

3 cific users or purchasers, except that such term may

4 include computer software that—

5   (A) is produced for users or purchasers

6   that supply certain installation parameters

7   needed by the computer software program to

8   function properly with the computer system of

9   the user or purchaser; or

10   (B) is customized by the user or purchaser

11   by selecting from among options contained in

12   the computer software program.

13   (2) COMPUTING DEVICE.—The term "comput-

14 ing device" means a device that incorporates one or

15 more microprocessor-based central processing units

16 that are capable of accepting, storing, processing, or

17 providing output of data.

18   (3) COMPUTER HARDWARE.—The term "com-

19 puter hardware" includes computer systems, equip-

20 ment, application-specific assemblies, modules, and

21 integrated circuits.

22   (4) DECRYPTION.—The term "decryption"

23 means the unscrambling of wire or electronic com-

24 munications or information using mathematical for-

25 mulas, codes, or algorithms.

9

1   (5) DECRYPTION KEY.—The term "decryption

2 key" means the variable information used in a math-

3 ematical formula, code, or algorithm, or any compo-

4 nent thereof, used to decrypt wire or electronic com-

5 munications or information that has been encrypted.

6   (6) DESIGNED FOR INSTALLATION BY THE

7 USER OR PURCHASER.—The term "designed for

8 installation by the user or purchaser" means, in the

9 case of computer software (including computer soft-

10 ware with encryption capabilities) computer

11 software—

12   (A) with respect to which the producer of

13   that computer software—

14   (i) intends for the user or purchaser

15   (including any licensee or transferee), to

16   install the computer software program on

17   a computing device; and

18   (ii) has supplied the necessary

19   instructions to do so, except that the pro-

20   ducer or distributor of the computer soft-

21   ware program (or any agent of such pro-

22   ducer or distributor) may also provide tele-

23   phone help-line or onsite services for com-

24   puter software installation, electronic

25   transmission, or basic operations; and

1   (B) that is designed for installation by the

2   user or purchaser without further substantial

3   support by the supplier.

4   (7) ENCRYPTION.—The term "encryption"

5 means the scrambling of wire or electronic commu-

6 nications or information using mathematical for-

7 mulas, codes, or algorithms in order to preserve the

8 confidentiality, integrity, or authenticity of such

9 communications or information and prevent unau-

10 thorized recipients from accessing or altering such

11 communications or information.

12   (8) GENERAL LICENSE.—The term "general

13 license" means a general authorization that is appli-

14 cable to a type of export that does not require an

15 exporter of that type of export to, as a condition to

16 exporting—

17   (A) submit a written application to the

18   Secretary; or

19   (B) receive prior written authorization by

20   the Secretary.

21   (9) GENERALLY AVAILABLE.—The term "gen-

22 erally available" means, in the case of computer

23 software (including software with encryption capa-

24 bilities), computer software that—

1   (A) is distributed via the Internet or that

2   is widely offered for sale, license, or transfer

3   (without regard to whether it is offered for con-

4   sideration), including over-the-counter retail

5   sales, mail order transactions, telephone order

6   transactions, electronic distribution, or sale on

7   approval; or

8   (B) preloaded on computer hardware that

9   is widely available.

10   (10) INTERNET.—The term "Internet" means

11   the international computer network of both Federal

12   and non-Federal interconnected packet-switched

13   data networks.

14   (11) SECRETARY.—The term "Secretary"

15   means the Secretary of Commerce.

16   (12) STATE.—The term "State" means each of

17   the several States of the United States, the District

18   of Columbia, the Commonwealth of Puerto Rico, and

19   any territory or possession of the United States.

SEC. 4. RESTRICTION OF DEPARTMENT OF COMMERCE

ENCRYPTION ACTIVITIES IMPOSING GOVERN-

MENT ENCRYPTION SYSTEMS.

23   (a) LIMITATION ON REGULATORY AUTHORITY CON-

24   CERNING ENCRYPTION STANDARDS.—The Secretary may

25   not (acting through the National Institute of Standards

1 and Technology or otherwise) promulgate, or enforce regu-

2 lations, or otherwise adopt standards or carry out policies

3 that result in encryption standards intended for use by

4 businesses or entities other than Federal computer sys-

5 tems.

6 (b) LIMITATION ON AUTHORITY CONCERNING

7 EXPORTS OF COMPUTER HARDWARE AND COMPUTER

8 SOFTWARE WITH ENCRYPTION CAPABILITIES.—The Sec-

9 retary may not promulgate or enforce regulations, or

10 adopt or carry out policies in a manner inconsistent with

11 this Act, or that have the effect of imposing government-

12 designed encryption standards on the private sector by re-

13 stricting the export of computer hardware and computer

14 software with encryption capabilities.

15 **SEC. 5. PROMOTION OF COMMERCIAL ENCRYPTION**

16 **PRODUCTS.**

17 (a) PROHIBITION ON RESTRICTIONS ON SALE OR

18 DISTRIBUTION IN INTERSTATE COMMERCE.—

19 (1) IN GENERAL.—Notwithstanding any other

20 provision of law, neither the Federal Government

21 nor any State may restrict or regulate the sale in

22 interstate commerce, by any person of any product

23 or program with encryption capabilities. Nothing in

24 this paragraph may be construed to preempt any

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1   provision of Federal or State law applicable to con-
2   traband or regulated substances.

3   (2) APPLICABILITY.—Paragraph (1) shall apply
4   without regard to the encryption algorithm selected,
5   encryption key length chosen, or implementation
6   technique or medium used for a product or program
7   with encryption capabilities.

8   (b) PROHIBITION ON MANDATORY KEY ESCROW.—
9 Neither the Federal Government nor any State may
10 require, as a condition of sale in interstate commerce, that
11 a decryption key be given to any other person (including
12 a Federal agency or an entity in the private sector that
13 may be certified or approved by the Federal Government
14 or a State).

15   (c) CONTROL OF EXPORTS BY SECRETARY.—

16   (1) GENERAL RULE.—Notwithstanding any
17   other provision of law and subject to paragraphs (2),
18   (3), and (4), the Secretary shall have exclusive
19   authority to control exports of all computer hard-
20   ware, computer software, and technology with
21   encryption capabilities, except computer hardware,
22   computer software, and technology that is specifi-
23   cally designed or modified for military use, including
24   command, control, and intelligence applications.

1   (2) ITEMS THAT DO NOT REQUIRE VALIDATED

2   LICENSES.—Only a general license may be required,

3   except as otherwise provided under the Trading

4   With The Enemy Act (50 U.S.C. App. 1 et seq.) or

5   the International Emergency Economic Powers Act

6   (50 U.S.C. 1701 et seq.) (but only to the extent that

7   the authority of the International Emergency Eco-

8   nomic Powers Act is not exercised to extend controls

9   imposed under the Export Administration Act of

10   1979), for the export or reexport of—

11   (A) any computer software, including com-

12   puter software with encryption capabilities, that

13   is—

14   (i) generally available, as is, and

15   designed for installation by the user or

16   purchaser; or

17   (ii) in the public domain (including on

18   the Internet) or publicly available because

19   it is generally accessible to the interested

20   public in any form; or

21   (B) any computing device or computer

22   hardware solely because it incorporates or em-

23   ploys in any form computer software (including

24   computer software with encryption capabilities)

25   that is described in subparagraph (A).

1   (3) COMPUTER SOFTWARE AND COMPUTER

2 HARDWARE WITH ENCRYPTION CAPABILITIES.—

3   (A) IN GENERAL.—Except as provided in

4   subparagraph (B), the Secretary shall authorize

5   the export or reexport of computer software and

6   computer hardware with encryption capabilities

7   under a general license for nonmilitary end-uses

8   in any foreign country to which those exports of

9   computer software and computer hardware of

10   similar capability are permitted for use by

11   financial institutions that the Secretary deter-

12   mines not to be controlled in fact by United

13   States persons.

14   (B) EXCEPTION.—The Secretary shall pro-

15   hibit the export or reexport of computer

16   software and computer hardware described in

17   subparagraph (A) to a foreign country if the

18   Secretary determines that there is substantial

19   evidence that such software and computer hard-

20   ware will be—

21   (i) diverted to a military end-use or

22   an end-use supporting international

23   terrorism;

24   (ii) modified for military or terrorist

25   end-use; or

1   (iii) reexported without the authoriza-

2   tion required under Federal law.

3   (d) STATUTORY CONSTRUCTION.—Nothing in this

4 Act may be construed to affect any law in effect on the

5 day before the date of enactment of this Act designed to

6 prevent the distribution of descramblers and any other

7 equipment for illegal interceptions cable and satellite tele-

8 vision signals.

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